

**STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**MONITORING AND REPORTING PROGRAM NO. CI-8608**

**FOR  
SQUARE D COMPANY  
(FORMER SQUARE D FACILITY)**

**ENROLLMENT UNDER REGIONAL BOARD  
ORDER NO. R4-2002-0030 (Series No. 031)  
SLIC FILE NO. 852**

**I. MONITORING AND REPORTING REQUIREMENTS**

- A. Square D Company (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (August 12, 2003) under Regional Board Order No. R4-2002-0030. The first monitoring report under this program for the monitoring period July-September 2003 shall be received at the Regional Board by October 15, 2003. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule as specified in the Cleanup and Abatement Order No. 2001-102:

<u>Monitoring Period</u>	<u>Report Due</u>
January – March	May 1
April – June	August 1
July – September	November 1
October – December	February 1

- B. Monitoring reports shall include technical information on total quantities of injected chemicals/fluids, composition of injected chemicals/fluids, and injection points/locations. If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. By March 1 of each year, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements.
- D. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.

- E. The Discharger shall comply with requirements contained in Section G. of Order No. R4-2002-0030 "Monitoring and Reporting Requirements" in addition to the aforementioned requirements.

## II. GROUNDWATER MONITORING

The Discharger shall monitor the groundwater conditions to determine the efficacy of the carbohydrate injection and to confirm that the *In-situ* Reactive Zone (IRZ) is hydraulically contained. To monitor hydraulic containment of the injected solution, a magnesium bromide tracer will be added at a constant concentration to all solutions placed in the aquifer. Hydraulic control will also be monitored using the analysis of dissolved organic carbon (DOC) and chlorinated volatile organic compounds (VOCs) in downgradient and cross-gradient wells. DOC is the primary means to measure the presence or absence of carbohydrate solution in groundwater. Absence of significant organic carbon in the upgradient, downgradient and cross gradient wells will confirm that the injected reagent remains confined to the remediation area.

The Discharger shall monitor the quality of the groundwater to determine the degree of remediation in the three areas of concern. In the former woodworking area (AOC-1) monitoring will be performed at monitoring wells MW-9 (upgradient), W-7 (source well) and MW-7 (downgradient). In the former sanding and painting area (AOC-2), monitoring will be performed at monitoring wells W-3 (upgradient), W-2 (source well), and MW-11 and MW-12 (downgradient). VER 4 and 5, monitoring wells that are part of an existing monitoring well system at the site, will be tested in the former machine shop area (AOC-3). Monitoring will also be performed on W-1 (source well) and MW-8 (downgradient) in AOC-3.

<u>CONSTITUENT</u>	<u>UNITS*</u>	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
Chlorinated Volatile Organic Compounds (EPA Method 8260B)	µg/l	grab	Quarterly
Dissolved Organic Carbon (EPA Method 415.1)	mg/l	grab	Quarterly
Total dissolved solids and Total suspended solids	mg/l	grab	Quarterly
pH	pH units	grab	Quarterly
Oxidation-reduction potential	millivolts	grab	Quarterly
Groundwater Elevation	Feet, bgs	In situ	Quarterly
Dissolved Oxygen	mg/l	grab	Quarterly
Chemical Oxygen Demand	µg/l	grab	Quarterly

Major Anions (bromide, chloride, sulfate, nitrate, nitrite, phosphate, carbonate and sulfide)	µg/l	grab	Quarterly
Major Cations (calcium, magnesium, potassium and sodium)	µg/l	grab	Quarterly
Methane, Ethene, Ethane, Carbon Dioxide	µg/l	grab	Quarterly

\*µg/l – micrograms per liter  
mg/l – milligrams per liter  
bgs – below ground surface

The Discharger shall monitor the injection wells, IRZ-1 to IRZ 11, according to the monitoring schedule in the attached Table 5.

In the event of additional groundwater monitoring, the Discharger must submit the results of the monitoring according to the reporting schedule specified in section I.A.

All groundwater monitoring reports must include, at minimum, the following:

- Well identification, date and time of sampling;
- Sampler identification, and laboratory identification;
- Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

### III. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Regional Board Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

### IV. REMEDATION PROGRESS REPORT

As specified in the amended Cleanup and Abatement Order (CAO) No. 2001-102 dated October 22, 2002, the Discharger shall submit quarterly remediation progress reports according to the following schedule:

January – March	May 1
April – June	August 1
July – September	November 1
October – December	February 1

V. CERTIFICATION STATEMENT

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_

at \_\_\_\_\_

\_\_\_\_\_(Signature)

\_\_\_\_\_(Title)"

All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by:

*for* David A. Bacharowski, CEO  
Dennis A. Dickerson  
Executive Officer

Date: August 12, 2003

**Table 5. Carbohydrate Injection and Monitoring Schedule**  
Former Square D Facility, 4335 Valley Boulevard, Los Angeles, California

[illegible]

(†) Field measurements using YSI 6000 Water Quality Transmitter Unit.

(2) Field test in (1) each)

(3) Method developed by Microseeps, Inc.

(4) IAP groundwater data collection will be coordinated with quarterly groundwater monitoring events such that data duplication does not occur.

(5) This table was previously presented in the ARCADIS Geraghty & Miller, Remedial Action Implementation Work Plan, dated June 14, 2000 and has subsequently been revised.

**M = McJannet's addition**

W = Cheese whey addition

EPA = Environmental Protection Agency

### F-Field Monitoring

## 2. Laboratory Analysis

**P=Permanent Gases**